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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/361,816	07/27/1999	SIMON ALEXANDER HANSON ROSE	AG/W-21900/A	5989
324 7590 02/15/2007 CIBA SPECIALTY CHEMICALS CORPORATION PATENT DEPARTMENT 540 WHITE PLAINS RD P O BOX 2005 TARRYTOWN, NY 10591-9005			EXAMINER QAZI, SABIHA NAIM	
			ART UNIT 1616	PAPER NUMBER
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

09/361,816

Applicant(s)

HANSON ROSE ET AL.

Examiner

Sabiha Qazi

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 06 September 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 12-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 12-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**Non-Final Office Action**

Claims 12-21 are pending. No claim is allowed at this time.

**Summary of this Office Action dated Saturday, November 25, 2006**

1. Response to Remarks
2. Information Disclosure Statement
3. Copending Applications
4. Specification
5. 35 USC § 112 --- First Paragraph Written Description Rejection
6. 35 USC § 102(b) Rejection
7. 35 USC § 103(a) Rejection
8. Communication

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**Response to Remarks**

- The arguments presented in brief were considered in an appeal conference. It was decided that claims are not allowable and to modify the rejections and if necessary more references may be added. Rejection over WO 98/01938 is withdrawn.
- Obviousness rejection is being made of combination of references. "One cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references." In re Keller, 642 F.2d 413, 208 SPQ 871 (CCPA 1981); In re Merck & Co., Inc., 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). See MPEP 2145.

**Information Disclosure Statement**

The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609.04(a) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

### **Copending Applications**

Applicants must bring to the attention of the examiner, or other Office official involved with the examination of a particular application, information within their knowledge as to other copending United States applications, which are "material to patentability" of the application in question. MPEP 2001.06(b). See *Dayco Products Inc. v. Total Containment Inc.*, 66 USPQ2d 1801 (CA FC 2003).

### **Specification**

The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

### **35 USC § 112 --- First Paragraph Written Description Rejection**

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 12-21 rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

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Presently claimed invention is drawn to:

A soil treatment process comprising adding an aqueous soil treatment composition consisting essentially of:

- (a) *An ionic water-soluble fertilizer in an amount of at least 10 weight percent,*  
*and*  
(b) *A water-soluble anionic polymer which has the intrinsic viscosity of from 9-12 dl/g and is formed from water-soluble monomer blend comprising 60-80% anionic monomer and from 40 to 20% nonionic monomer, the composition having a viscosity of not more than 4,000 cps, to water, the composition being thereby diluted, and irrigating an area of soil with water.*

Applicant had no possession of the claimed subject matter at the time the application was filed. The data presented in the specification on pages 10-12 does not describe the invention as claimed. The method steps as claimed are missing. Further claims are broad and contain an step of "an ionic water-soluble fertilizer in an amount of at least 10 weight percent", containing at least 10% of any ionic water soluble fertilizer. Further claim is drawn to (b) *a water-soluble anionic polymer which has the intrinsic viscosity of from 9-12 dl/g and is formed from water-soluble monomer blend comprising 60-80% anionic monomer and from 40 to 20% nonionic monomer, the composition having a viscosity of not more than 4,000 cps, to water, the composition being thereby diluted, and irrigating an area of soil with water.* Compounds containing intrinsic viscosity of from 9-12 dl/g and is formed from water-soluble monomer blend includes thousands of compounds having different chemical structures, different molecular

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weight and different chemical properties. Furthermore, ionic water-soluble fertilizer in an amount of at least 10 weight percent", containing at least 10% of any ionic water soluble fertilizer includes large number of compounds having different molecular weight, different structures and different chemical properties. **It is impossible to determine the properties, for a wide range of different class of compound.** Applicants had no possession of the subject matter as has been claimed.

**The written description requirement prevents applications from using the amendment process to update the disclosure in their disclosures (claims or specification) during the pendency before the patent office. Otherwise applicants could add new matter to their disclosures and date them back to their original filing date, thus defeating an accurate accounting of the priority of the invention. See 35 USC 132. The function of description requirement is to ensure that the inventor had possession, as of filing date of the application relied on, the specific subject matter claimed by him.**

See *Genetech*, 108 F 3d 1361, 1365 (Fed. Cir. at 1366, 78, 1999).

The test for determining compliance with the written description requirement is whether the disclosure of the application as originally filed reasonably conveys to one skilled in the art that **the inventor had the possession at the time of the later claimed subject matter, rather than the presence or absence of literal support in**

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**the specification for the claimed language.** See *In re Kaslow*, 707 F.2d 1366, 1375 (Fed. Cir. 1983).

In the present case Applicant has no possession of method of the subject matter at the time the application was filed.

See MPEP 2163.06, for Applicant convenience relevant part is cited below.

**GENERAL PRINCIPLES GOVERNING COMPLIANCE WITH THE  
"WRITTEN DESCRIPTION" REQUIREMENT FOR APPLICATIONS**

The first paragraph of 35 U.S.C. 112 requires that the "specification shall contain a written description of the invention \* \* \*." This requirement is separate and distinct from the enablement requirement. See, e.g., *Vas-Cath, Inc. v. Mahurkar*, 935 F.2d 1555, 1560, 19 USPQ2d 1111, 1114 (Fed. Cir. 1991). >See also *Univ. of Rochester v. G.D. Searle & Co.*, 358 F.3d 916, 920-23, 69 USPQ2d 1886, 1890-93 (Fed. Cir. 2004) (discussing history and purpose of the written description requirement); *In re Curtis*, 354 F.3d 1347, 1357, 69 USPQ2d 1274, 1282 (Fed. Cir. 2004) ("conclusive evidence of a claim's enablement is not equally conclusive of that claim's satisfactory written description").< The written description requirement has several policy objectives. "[T]he 'essential goal' of the description of the invention requirement is to clearly convey the information that an applicant has invented the subject matter which is claimed." *In re Barker*, 559 F.2d 588, 592 n.4, 194 USPQ 470, 473 n.4 (CCPA 1977). Another objective is to put the public in possession of what the applicant claims as the invention. See *Regents of the University of*



*California v. Eli Lilly*, 119 F.3d 1559, 1566, 43 USPQ2d 1398, 1404 (Fed. Cir. 1997), *cert. denied*, 523 U.S. 1089 (1998). The written description requirement of the Patent Act promotes the progress of the useful arts by ensuring that patentees adequately describe their inventions in their patent specifications in exchange for the right to exclude others from practicing the invention for the duration of the patent's term.

To satisfy the written description requirement, a patent specification must describe the claimed invention in sufficient detail that one skilled in the art can reasonably conclude that the inventor had possession of the claimed invention. See, e.g., *Moba, B.V. v. Diamond Automation, Inc.*, 325 F.3d 1306, 1319, 66 USPQ2d 1429, 1438 (Fed. Cir. 2003); *Vas-Cath, Inc. v. Mahurkar*, 935 F.2d at 1563, 19 USPQ2d at 1116. However, a showing of possession alone does not cure the lack of a written description. *Enzo Biochem, Inc. v. Gen-Probe, Inc.*, 323 F.3d 956, 969-70, 63 USPQ2d 1609, 1617 (Fed. Cir. 2002). Much of the written description case law addresses whether the specification as originally filed supports claims not originally in the application. The issue raised in the cases is most often phrased as whether the original application provides "adequate support" for the claims at issue or whether the material added to the specification incorporates "new matter" in violation of 35 U.S.C. 132. The "written description" question similarly arises in the interference context, where the issue is whether the specification of one party to the interference can support the newly added claims corresponding to the count at issue, i.e., whether that party can "make the claim" corresponding to the interference count. See, e.g., *Martin v. Mayer*, 823 F.2d 500, 503, 3 USPQ2d 1333, 1335 (Fed. Cir. 1987). In addition, early opinions suggest the Patent and Trademark Office was unwilling to find written descriptive support when the only description was found in the claims; however, this viewpoint was rejected. See *In re Koller*, 613 F.2d 819, 204 USPQ 702 (CCPA 1980) (original claims constitute their own description); accord *In re Gardner*,

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475 F.2d 1389, 177 USPQ 396 (CCPA 1973); *accord In re Wertheim*, 541 F.2d 257, 191 USPQ 90 (CCPA 1976). It is now well accepted that a satisfactory description may be in the claims or any other portion of the originally filed specification. These early opinions did not address the quality or specificity of particularity that was required in the description, i.e., how much description is enough.

An applicant shows possession of the claimed invention by describing the claimed invention with all of its limitations using such descriptive means as words, structures, figures, diagrams, and formulas that fully set forth the claimed invention. *Lockwood v. American Airlines, Inc.*, 107 F.3d 1565, 1572, 41 USPQ2d 1961, 1966 (Fed. Cir. 1997). Possession may be shown in a variety of ways including description of an actual reduction to practice, or by showing that the invention was "ready for patenting" such as by the disclosure of drawings or structural chemical formulas that show that the invention was complete, or by describing distinguishing identifying characteristics sufficient to show that the applicant was in possession of the claimed invention. See, e.g., *Pfaff v. Wells Elecs., Inc.*, 525 U.S. 55, 68, 119 S.Ct. 304, 312, 48 USPQ2d 1641, 1647 (1998); *Eli Lilly*, 119 F.3d at 1568, 43 USPQ2d at 1406; *Amgen, Inc. v. Chugai Pharmaceutical*, 927 F.2d 1200, 1206, 18 USPQ2d 1016, 1021 (Fed. Cir. 1991) (one must define a compound by "whatever characteristics sufficiently distinguish it"). "Compliance with the written description requirement is essentially a fact-based inquiry that will 'necessarily vary depending on the nature of the invention claimed.'" *Enzo Biochem*, \*\*>323 F.3d at 963<, 63 USPQ2d at 1613. An application specification may show actual reduction to practice by describing testing of the claimed invention or, in the case of biological materials, by specifically describing a deposit made in accordance with 37 CFR 1.801 *et seq.* See *Enzo Biochem*, \*\*>323 F.3d at 965<, 63 USPQ2d at 1614 ("reference in the specification to a deposit may also satisfy the written description requirement with respect to a claimed material"); see

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also Deposit of Biological Materials for Patent Purposes, Final Rule, 54 FR 34,864 (August 22, 1989) ("The requirement for a specific identification is consistent with the description requirement of the first paragraph of 35 U.S.C. 112, and to provide an antecedent basis for the biological material which either has been or will be deposited before the patent is granted." Id. at 34,876. "The description must be sufficient to permit verification that the deposited biological material is in fact that disclosed. Once the patent issues, the description must be sufficient to aid in the resolution of questions of infringement." Id. at 34,880.). Such a deposit is not a substitute for a written description of the claimed invention. The written description of the deposited material needs to be as complete as possible because the examination for patentability proceeds solely on the basis of the written description. See, e.g., *In re Lundak*, 773 F.2d 1216, 227 USPQ 90 (Fed. Cir. 1985). See also 54 FR at 34,880 ("As a general rule, the more information that is provided about a particular deposited biological material, the better the examiner will be able to compare the identity and characteristics of the deposited biological material with the prior art.").

A question as to whether a specification provides an adequate written description may arise in the context of an original claim which is not described sufficiently (see, e.g., *Enzo Biochem*, \*\*>323 F.3d at 968<, 63 USPQ2d at 1616 (Fed. Cir. 2002); *Eli Lilly*, 119 F.3d 1559, 43 USPQ2d 1398), a new or amended claim wherein a claim limitation has been added or removed, or a claim to entitlement of an earlier priority date or effective filing date under 35 U.S.C. 119, 120, or 365(c). Most typically, the issue will arise in the context of determining whether new or amended claims are supported by the description of the invention in the application as filed (see, e.g., *In re Wright*, 866 F.2d 422, 9 USPQ2d 1649 (Fed. Cir. 1989)), whether a claimed invention is entitled to the benefit of an earlier priority date or effective filing date under 35 U.S.C. 119, 120, or 365(c) (see, e.g., *New Railhead Mfg. L.L.C. v. Vermeer Mfg. Co.*, 298 F.3d 1290, 63

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USPQ2d 1843 (Fed. Cir. 2002); *Tronzo v. Biomet, Inc.*, 156 F.3d 1154, 47 USPQ2d 1829 (Fed. Cir. 1998); *Fiers v. Revel*, 984 F.2d 1164, 25 USPQ2d 1601 (Fed. Cir. 1993); *In re Ziegler*, 992 F.2d 1197, 1200, 26 USPQ2d 1600, 1603 (Fed. Cir. 1993)), or whether a specification provides support for a claim corresponding to a count in an interference (see, e.g., *Fields v. Conover*, 443 F.2d 1386, 170 USPQ 276 (CCPA 1971)). Compliance with the written description requirement is a question of fact which must be resolved on a case-by-case basis. *Vas-Cath, Inc. v. Mahurkar*, 935 F.2d at 1563, 19 USPQ2d at 1116 (Fed. Cir. 1991).

#### 2163.06 Relationship of Written Description Requirement to New Matter

Lack of written description is an issue that generally arises with respect to the subject matter of a claim. If an applicant amends or attempts to amend the abstract, specification or drawings of an application, an issue of new matter will arise if the content of the amendment is not described in the application as filed. Stated another way, information contained in any one of the specification, claims or drawings of the application as filed may be added to any other part of the application without introducing new matter. There are two statutory provisions that prohibit the introduction of new matter: **35 U.S.C. 132** - No amendment shall introduce new matter into the disclosure of the invention.

#### **35 U.S.C. 112 Specification. - Patent Laws**

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and

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use the same, and shall set forth the best mode contemplated by the inventor of carrying out his invention.

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

**Claim Rejections - 35 USC § 102**

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 12-21 rejected under 35 U.S.C. 102(b) as being anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over HASHIMOTO et al. (US Patent 3,798,838).

5. The reference discloses fertilization and irrigation of soil wherein the soils are contacted with the aqueous solution of a water soluble plant nutrient salt and an effective amount of a partially hydrolyzed polyacrylamide to reduce the permeability of the soil without rendering it impermeable to water flow.

6. The reference further discloses that water-soluble plant nutrients and partially hydrolyzed polyacrylamide exhibit a synergistic effect to decrease the water permeability of the soils. Furthermore it discloses that plants grow better in the treated

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soil and are more efficient in uptake of nutrients from the soil. It also discloses that "These discoveries can be used to conserve water and fertilizer and improve the efficiency of agronomy by connecting the soil with a solution having a concentration of from 0.001 to about 1 weight percent of a polyacrylamide having from 5 to about 80 percent of its amide groups hydrolyzed to carboxylic acid groups and from 0.001 to 5 weight percent of a water, plant nutrient salt". See the abstract of the invention.

Nutrients are fertilizer salts.

7. HASHIMOTO discloses a water-soluble polymer (polyacrylamide) and a nutrient in example 1. The reference also discloses that 12 to 45 percent of the amide groups are hydrolyzed to water soluble carboxylate groups in lines 1-6, column 3 which is the instant polymer. The amount of a polymer in water and a viscosity of 2 to 1,000 cPs are taught in lines 10-14 in column 4. Dissolution of a polymer in water is taught in lines 26-34, column 4. The viscosity of the polymer of HASHIMOTO such solution inherently possess the instantly recited intrinsic viscosity. A reference must be considered for all that is disclosed and must not be limited to its preferred embodiments or working examples.

### ***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the

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subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining

obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

10. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

11. Claims 12-21 rejected under 35 U.S.C. 103(a) as being unpatentable over MILLER (EP 0586,911) in view of WALLACE et al (US Patent 4,797,145) and HASHIMOTO et al (US Patent 3,798,838).

1. **Determining the scope and contents of the prior art.**

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The reference MILLER, EP '911 teaches a composition for the treatment of soil containing an anionic fertilizer and anionic polymer such as polyacrylamide and 97 to 0 mole percent of different water-soluble monomer or salts thereof. See the entire document especially lines 36-50 and lines 1-30 on page 3; lines 4-40, page 4; Tables, examples and claims. The composition is added to water prior to irrigating an area of soil. See claims 8 and 10.

WALLACE et al., US'145 teach an aqueous composition comprising a water-soluble polymer and fertilizer salts in examples. Various synthetic polymers and salts thereof are taught in lines 23-61, column 3. The instant claims are drawn to a water-soluble fertilizer, WALLACE teaches calcium chloride. EP reference teaches soil modifiers.

**2. Ascertaining the differences between the prior art and the claims at issue.**

Instant claims differ from the reference in claiming the ranges of viscosities of the composition.

**3. Resolving the level of ordinary skill in the pertinent art.**

MILER in EP '911 teaches gel composition and instant is aqueous composition. (The viscosity would be the same for anionic polymer taught by EP '911). The reference teaches copolymers of acrylamide and acrylic acid, in ranges from 3 to 100 mole percent of acrylic monomer unit or salts and from 97 to 0 mole percent of other water-soluble monomer or salts. (see lines 38-45 on page 3). Useful polymers taught include polyacrylamide, copolymers of acrylamide and acrylic acid, polyacrylates. Examples 1-4 and 7 contain specific polymers of acrylamide and acrylic acid.

It is known that a chemical compound and its properties for example viscosity, melting point, density etc. are inseparable to the compound). See *In re Spada*, 15 USPQ (2d) 1655, 1658.



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WALLACE teaches various polymers wherein copolymers of acrylic acid and acrylamide are included. Concentration of polymers (lines 50-52, 0.1% by weight, column 4) and calcium chloride (line 61, column 6) are taught. Wallace teaches copolymers of acrylic acid or salts thereof. Wallace also teaches the use of calcium chloride, which is fertilizer, see line 61 in col. 6.

HASHIMOTO et al. US Patent 3,798,838) teaches a method of irrigation and fertilization. The reference teaches that partially hydrolyzed polyacrylamide exhibit a synergistic effect to decrease water permeability of the soils. Furthermore, the reference teaches that plants grow better in the treated soil and are more efficient in uptake of nutrients from the soil. These discoveries can be use to conserve water and fertilizer and improve the efficiency of agronomy by contacting the soil with a solution having a concentration of from 0.001 to about 1 weight percent of a polyacrylamide having from 5 to about 80 percent of its amide groups hydrolyzed to carboxylic acid groups and from 0.001 to 5 weight percent of a water soluble, plant nutrient salt (fertilizer salts).

**4. Considering objective evidence present in the application indicating obviousness or nonobviousness.**

One having ordinary skilled in the art would be motivated at the time of invention to prepare beneficial composition and process by combining the teachings of the prior art for the improvement of soil. HASHIMOTO teaches an aqueous composition comprising a water soluble polymer such as polyacrylamide and nutrient (example 1). It also teaches that 12 to 45 percent of the amide groups are hydrolyzed to water-soluble carboxylate groups (see lines 1-6, col. 3). The amount of polymer in water and the viscosity of 2 to 1,000 cPs (see lines 10-16, col. 4) and dissolution of a polymer in water is taught (lines 26-34, col. 4). The polymer of HASHIMOTO solution viscosity inherently

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possesses the instantly claimed intrinsic viscosity. See *In re Mills*, 477 F2d 649, 176 USPQ 196 (CCPA). (The reference must be considered for all it discloses and must not be limited to its preferred embodiments or working examples).

There has been ample motivation provided by the prior art to prepare the composition as instantly claimed because it would have been obvious to select potential anionic polymers which includes acrylamide polymer and combine with the nutrients to achieve the composition use for the treatment of soil. As taught by EP '911. The ratio and ranges would have been obvious to one skilled in the art because HOSHIMOTO and WELLACE teach the viscosities and ratios.

In absence of any criticality and/or unexpected results instant invention is considered *prima facie* obvious to one skilled in the art.

In the light of the forgoing discussion, the Examiner's ultimate legal conclusion is that the subject matter defined by the instant claims would have been obvious within the meaning of 35 U.S.C. 103(a).

### **Communication**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sabiha Qazi, Ph.D. whose telephone number is 571-272-0622. The examiner can normally be reached on any business day.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Johann Richter, Ph.D. can be reached on 571-272-0646. The fax phone

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number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



SABIHA QAZI, PH.D  
PRIMARY EXAMINER